

STEAM Year 7 Action Figure Project Overview

Unit overview

- Learn about concept design
- Learn Tools and techniques in Autodesk Sketchbook.
- Learn how to create a 3D model and Packaging to design brief Specifications.
- Learn about materials and their properties.
- Learn how to plan a new game.
- Develop Scratch programming skills

STEAM SKILLS

- Analysis
- Creativity
- Accuracy

<p>Lesson Overview</p> <ul style="list-style-type: none"> • Launch project overview, Initial design ideas/concept design • Product analysis/ design spec • Physical Character modelling • Packaging design, net construction and assembly • Planning game processes, sprites and backgrounds • Game character creation • Game development • Game Testing • Presentation of project <p>The order of lessons will vary depending on the needs of the project. Some lessons will be run for several lessons. You are expected to use some of your own time to further develop your skills.</p>	<p>Keywords</p> <ul style="list-style-type: none"> • Creativity • Accuracy • Application • Scratch <ul style="list-style-type: none"> ○ Loop/iteration ○ Decision/selection ○ Variable/assignment ○ Broadcast ○ Sensor ○ Sprite ○ Stage
<p>Suggested Reading or support available</p> <p>Laika character design – YouTube.</p> <p>STREAM Videos</p> <p>SCRATCH website</p> <p>STEAM Club- Thursday after school</p>	<p>Cross Curricular</p> <p>Maths – ratio and proportion, logical thinking and problem solving.</p> <p>SMSC: Students are required to identify an environmental problem and design a superhero and accompanying game to further highlight this problem.</p>

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SUCCESS CRITERIA			
Highlight your starting point for each skill in PINK , at the end of the project highlight where you think you got to in BLUE .			
Grade Range	Analysis	Creativity	Accuracy
0	I presented no work.	I presented no work.	I presented no work.
1	<p>WWW: I can say what the task to be solved was.</p> <p>EBI: I need to understand the problem in more detail.</p>	<p>WWW: I can develop some ideas using existing examples and try to make my own changes to them.</p> <p>EBI: I need to make my designs my more my own and try to bring something new into them.</p>	<p>WWW: I have made an attempt to complete the task with some success.</p> <p>EBI: I need to try and take more time and care with my work to avoid mistakes.</p>
4	<p>WWW: I can identify the task and individual problems to be solved with some help.</p> <p>EBI: I need to break the problem down into parts and describe how the parts are linked.</p>	<p>WWW: I can develop and show some fresh ideas and my examples are mostly developed by myself.</p> <p>EBI: I need to use other peoples examples and ideas more for inspiration than copying and develop my own style.</p>	<p>WWW: I have completed the task with reasonable accuracy and have created a successful piece of work</p> <p>EBI: I need to make sure I have planned and prepared my work beforehand and take more care to avoid errors.</p>
6	<p>WWW: I can independently and accurately identify the various problems within the overall task.</p> <p>EBI: I need to make sure that I have carefully and in detail examined all possible parts of the problem.</p>	<p>WWW: I use examples only as a start point and can develop numerous different options from there. My final ideas clearly show my own personality and style.</p> <p>EBI: I need to try and produce alternative unique ideas that accurately meet the design requirements.</p>	<p>WWW: I have consistently completed tasks with care and with few mistakes resulting in a successful piece of work.</p> <p>EBI: I need to ensure my work is planned and prepared thoroughly to ensure I can complete a task without any errors.</p>
8	<p>WWW: I can analyse the problem(s) thoroughly and can give a comprehensive and accurate description of each problem to be solved within the overall task.</p>	<p>WWW: I can develop multiple new ideas and options that accurately meet the design requirements. My solutions are highly innovative, unique and purposeful.</p>	<p>WWW: I always complete the tasks with a high level of precision and accuracy and have produced a quality outcome which is both functional and elegant.</p> <p>EBI I should consider ways of producing every part of my work to a consistently high quality.</p>

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